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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/934,579 | 08/23/2001 | Yoshiharu Maeno | Q65960 | 7887 |

7590 10/05/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

PAYNE, DAVID C

| | |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2638

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/934,579 | MAENO, YOSHIHARU | |
| | Examiner | Art Unit | |
| | David C. Payne | 2638 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-21 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received..

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6-8, 10, and 14-17 are rejected under 35 U.S.C. 102(e) as being Kirby by 6647208 B1 (Kirby).

Re claim(s) 1, 2, 17 Kirby disclosed,

A line processing equipment comprising: at least one line processing means for processing respective lines; and line connection reconfiguration means to set up and reconfigure connections from input lines coming into said line processing equipment to either said line processing means or output lines going out of said line processing equipment and connections from said line processing means to either back to said line processing means or to said output lines (Figure 2A.)

Re claim(s) 6, 10 Kirby further disclosed,

wherein said input lines and said output lines are optical fiber lines which transmit packet multiplexed, time division multiplexed and/or wavelength division multiplexed optical signals (see e.g., 225 of Figure 2A)

Re claim(s) 7, 8 Kirby further disclosed,

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wherein at least one of said line processing means is a packet switch for switching said packet multiplexed optical signals (e.g., see col./line(s): 5/15-30).

Re claim(s) 14 Kirby further disclosed

wherein at least one wavelength converter is disclosed as part of the line processing means (e.g., see col./line(s): 17/20-25).

Re claim(s) 15 Kirby further disclosed, wherein at least one of said line processing means is a circuit for monitoring optical signal quality of said optical signals (284 of Figure 2B).

Re claim(s) 16 Kirby further disclosed

wherein at least one of said line processing means is a circuit for generating test patterns and inserting said test patterns into said optical signals (e.g., see col./line(s): 14/60-65).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 9, and 11-13 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby by 6647208 B1 (Kirby).

Re claim 9, Kirby disclosed the aforementioned invention with a packet switch architecture but not a TDM architecture. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use a TDM architecture as time multiplexing is extremely well known in the art and in

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which the Kirby invention of recirculation of traffic back through the switch accommodates regardless of time or packet switching.

Re claim 11-13, Kirby disclosed WDM but not waveband multiplexing. However, it would have been obvious to one of ordinary skill in the art at the time of invention to perform band multiplexing/demultiplexing, as this is a mere grouping of wavelengths and extremely well known in the art.

5. Claim 3, 18-21, is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby by 6647208 B1 (Kirby) in view of Russell US 6856600 B1 (Russell).

Re claim 3 and 18-21, Kirby disclosed the aforementioned invention but now one with redundant switch elements with working and backup scheme as disclosed. Russell disclosed (Figure 2) redundant switch architecture with working and protection rings. It would have been obvious to one of ordinary skill in the art at the time of invention to use a redundant architecture in the Kirby system as does Russell for the benefit of providing a fault tolerant apparatus that is resilient in the presence of faults.

Allowable Subject Matter

6. Claims 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David C. Payne** whose telephone number is **(571) 272-3024**. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp


David C. Payne
Patent Examiner
AU 2638